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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,132	10/17/2005	Michael Boxer		2289

60333 7590 12/18/2007

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EXAMINER	
QIN, JIANCHUN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
12/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,132	BOXER, MICHAEL	
	Examiner	Art Unit	
	Jianchun Qin	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-22 and 24-27* is/are rejected.

7)☒ Claim(s) *23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tumblin (U. S. Pat. No. 4321853).

Regarding claim 13, Tumblin discloses a metronome for displaying tempo, time and the subdivision of time, of pieces of music or movement rhythms (Abstract; Figs. 2, 3; cols. 1-2, lines 56-18), comprising: a display (40) for optically displaying movement depicting an arc having a horizontal, uniform movement component and a vertical, accelerated movement component depicting a trajectory-parabola arc (col. 3, lines 24-37); and, means for activating said display for providing optical movement to and fro at a settable frequency (cols. 2-3, lines 58-2; col. 3, lines 8-27).

Regarding claim 14, Tumblin discloses: means for selective electrical production of sounds for a dynamic acoustic marking of turning points of said optical movement (col. 3, lines 28-37); means for selective acoustic subdivision of time intervals between said turning points of said optical movement (col. 3, lines 8-20; cols. 5-6, lines 61-9); a sensor (14, 94); and, an electronic circuit (Fig. 1 and 6) having software for detecting acoustic impulses for an optical or acoustic display of rhythm reproduced and

dependent on settable run-ahead tolerances or settable run-behind tolerances of rhythms recorded via said sensor (col. 4, lines 20-62).

Regarding claim 15, Tumblin discloses: said display includes a row of discrete light sources (56) arranged along a trajectory-parabola arc (Fig. 3), and means for activating said row of discrete light sources for producing a running light running to and fro along said row of discrete light sources at a settable frequency (cols. 2-3, lines 58-2; col. 3, lines 8-27), means for selective electrical production of sounds for an acoustic marking of turning points of the running light and means for selective acoustic subdivision of time intervals between the turning points of the running light (col. 3, lines 8-20 and 28-37; cols. 5-6, lines 61-9).

Regarding claim 16, Tumblin discloses: said row of discrete light sources have individual light sources (56) successively positioned at differing distances between successive said individual light sources (Fig. 3), so that with time intervals between an illumination of individual light sources remaining the same, a trajectory of a body is capable of being optically simulated with respect to said vertical, accelerated movement component of said optical movement, said trajectory undergoing a negative acceleration in an upwards movement and a positive acceleration in a downwards movement, while said horizontal, uniform movement component of said optical movement remains uniform (col. 3, lines 26-37).

Regarding claim 17, Tumblin discloses: said row of discrete light sources have individual light sources successively positioned at constant distances between successive said individual light sources, so that successive activation at differing time

intervals of said individual light sources, a running light is produced for optically simulating a trajectory of a body with respect to said vertical, accelerated movement component of said optical movement, said trajectory undergoing a negative acceleration in an upwards movement and a positive acceleration in a downwards movement (col. 3, lines 26-37).

Regarding claim 20, Tumblin discloses: said means for activating said row of discrete light sources includes a micro-processor (Fig. 1) for successively activating said individual light sources with a time interval for producing a running light for optically simulating a trajectory of a body with respect to said vertical, accelerated movement component of said optical movement, said trajectory undergoing a negative acceleration in an upwards movement and a positive acceleration in a downwards movement (col. 3, lines 8-37; cols. 5-6, lines 61-9).

Regarding claims 18, 19, 21 and 22, Tumblin discloses: means for setting a symmetrical or asymmetrical tolerances to predefined metronome beats for detecting rhythms produced by a user, so that when said symmetrical or asymmetrical tolerances are exceeded by the user, cumulated measurement results and instructions for accelerating or decelerating user-rhythm are optically produced via a display or acoustically produced via a loudspeaker (col. 4, lines 20-62); wherein said means for setting a symmetrical or asymmetrical tolerances to predefined metronome beats for detecting rhythms produced by a user include a microprocessor with software (col. 4, lines 20-62).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 24-27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tumblin in view of Kestner-Clifton et al. (U. S. Pat. No. 5275082).

Regarding claims 24-27, Tumblin discloses the metronome including the subject matter discussed above except: setting and displaying a numerical count of said turning points of optical movement within a given time period and beat type and type of acoustic subdivision of each beat; setting and displaying a numerical count of said running light within a given time period and beat type and type of acoustic subdivision of each beat; a digital counter for setting and displaying a number of turning points of said running light within a given time period; and means for selectively setting beat type and a display for displaying said beat type selectively set.

Kestner-Clifton et al. disclose a visual metronome, including: means for setting and displaying a numerical count of said turning points of optical movement within a given time period and beat type and type of acoustic subdivision of each beat (col. 6, lines 56-68; cols. 8-9, lines 63-28); an arc of discrete light sources for producing a running light running to and fro along the arc of discrete light sources at a settable frequency (cols. 6-8, lines 56-2); and means for setting and displaying a numerical

count of said running light within a given time period and beat type and type of acoustic subdivision of each beat (col. 6, lines 56-68; cols. 8-9, lines 63-28); a digital counter for setting and displaying a number of turning points of said running light within a given time period (col. 6, lines 56-68; cols. 8-9, lines 63-28); and means for selectively setting beat type and a display for displaying said beat type selectively set (col. 6, lines 56-68; cols. 8-9, lines 63-28)

Allowable Subject Matter

5. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

6. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claim 23 is the inclusion of the limitation of means for selecting acoustic tones of different frequencies, timbres and volumes and means for superimposing said acoustic tones of different frequencies, timbres and volumes on said optical movement so simulated, said means for selecting and said means for superimposing being controlled by said microprocessor, so that volume and intensity of an acoustic tone increases over movement of said running lights over said individual light sources of said arc, or over a portion thereof, and upon reaching outermost light sources of said arc, achieves a maximum or intensity center and

thereafter fades. It is this limitation found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Prior Art Citations

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Ogura et al. (JP 55087982 A) is entitled "Intellectual metronome".

2) Ishikawa (JP 63243786 A) is entitled "Display apparatus for electronic metronome"

3) George (U. S. Pat. No. 4649794) is entitled "Visual metronome".

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 8am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jianchun Qin
Examiner
Art Unit 2837

JQ